MODIS sensor Working Group (MsWG) Meeting Summary February 01, 2006

Attendance: Bill Barnes, Vincent Chiang, Gene Eplee, Gerhard Meister, Chris Moeller, Vincent Salomonson, Junqiang Sun, Gary Toller, Eric Vermote, Zhengming Wan, Brian Wenny, Aisheng Wu, Xiaobo Xie, Jack Xiong

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Scheduled Agenda

Item 1: Recent L1B LUT delivery

- Terra collection 4 forward update – V4.3.0.38 (Jan 20).
- Terra collection 4 forward update – V4.3.0.39 (Feb 1).
- Terra collection 5 forward update – V5.0.6.12 (Feb 1).

Item 2: Instrument status

- Terra and Aqua MODIS are in normal operations.
- Terra B28 detector 9 (PO) has been assigned to noisy detector in the latest L1B QA flag update. Nothing has changed to the calibration method for this detector.
- Flight operation will perform Aqua inclination maneuver to adjust equator crossing time in this fall or in spring 2007. Please keep the schedule in mind if you have calibration and validation activities during that time period.

Item 3: GDAAC and MODAPS data process transition

(*See some timelines in the package*.)

JX – GDAAC will stop producing collection 4 data soon. MCST still needs all the L1B OBC files delivered to MCST after the transition. Gary is the contact person for this issue.

CM – How to get historic collection 4 data set?

JX – You can still order from the GDAAC on demand, but probably not too long.

Item 4: Earthshine and m1 impact (*See separate package*.)

JX – Earthshine impact is about 0.3~0.5% estimated by SBRS, and it will be more for VIIRS thanks to bigger aperture door. Robert Wolfe did estimate the Earthshine on MODIS for 0.2~1% depending on spectral bands. For 0.4~2 μm, the impact is increased by the wavelength, mostly comes from the nadir port. It is also seasonally dependent. On page 3, the m1 has been affected by the Earthshine on B2 and 16 (similar wavelength, 800 *nm*). But the shorter wavelength, B3 and B9 on page 4, do not see the effect. This is consistent with the model prediction (Wolfe 2004).

JX – Page 5 shows that the SD Cal does have more range of data to use. By shifting the sweet spot, we can reduce some of the effects. We are demonstrating these tests on Terra because there are lots of SD calibration data to test on all kind of situations.

EV/GM – The impact is more in longer wavelength. We may not see the sudden change in m1 for shorter wavelength, but there might be some constant bias.

BB – There is only small impact on Terra, since we are doing average m1. Only the individual m1 is affected.

JX – Robert is working on a paper to address this issue at SPIE.

Around the Table

Participant: **Chris Moeller (Atmosphere)**

Report the progress of Aqua MOD06 improvement for LWIR, and the possibility to add that to collection 6 for Terra. This is for B33-36 only.

Participant: **Jack Xiong (MCST)**

The other issue we would like to address soon is the RSB RVS. We have only two points to track the change of RVS on orbit. It's more serious on B8 and B9, and also for B10. The longer

wavelength has less problem. Oceans group is going to reprocess Terra data. We would like to work with them for any improvement we can get on the RVS.
GM – There is another polarization issue for us. It's difficult too. We have TOA comparison with SeaWiFS, but it's only at one angle.
JX – We need more data to support the comparison.

Next MsWG meeting scheduled on February 15, 2006